

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2016/2017

DMM5018 – INTRODUCTION TO MULTIMEDIA
(For Diploma Students Only)

7 OCTOBER 2016
3:00 p.m – 5:00 p.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 7 pages with 4 sections.
2. Answer **ALL** questions.
3. For **Section A** and **B**, please shade your answers on the **OMR sheet** provided.
4. For **Section C** and **D**, please write your answers in the **Answer Booklet** provided.

Section A: Multiple Choice Questions (Total: 25 Marks)

Instruction: Please shade the correct answer on the OMR sheet provided.

1. Multimedia is a combination of the following content forms **EXCEPT**:
A. Text
B. Audio
C. Color
D. Interactivity
2. _____ is a technology that replicates an environment, real or imagined, and simulates a user's physical presence and environment to allow for user interaction.
A. Virtual reality
B. Face to face reality
C. Communication reality
D. Artificial intelligent
3. An animation video is a type of _____ multimedia project.
A. linear
B. nonlinear
C. structured link
D. non-structured link
4. Which type of testing is typically for internal circulation only?
A. Alpha testing
B. Beta testing
C. Internal testing
D. Black box testing
5. _____ connection is a standard interface for connecting a motherboard to storage devices such as hard drives and CD-ROM or DVD drives.
A. IDE
B. USB
C. FireWire
D. Wifi
6. Which of the following statements is **TRUE**?
A. Icon-based authoring tools arranged elements like pages of a book or cards in a stack.
B. An Adobe Flash is a type of card-based authoring tool.
C. Authoring tools generally treat multimedia elements as objects.
D. Time-based authoring tools provide a visual programming approach to organizing and presenting multimedia application.
7. Which of the following are the ways to choose text fonts to be used in multimedia project?
I. Consider legibility and readability.
II. Avoid using too many font faces.
III. Use as small a font size as possible to save up space.
IV. Minimize centered text.
A. I and II
B. II and III
C. I, II and IV
D. II, III and IV
8. A process to convert a text from a vector description to a raster or bitmap description is called _____.
A. font converting
B. font rasterization
C. font resizing
D. font mapping

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9. Which of the following is **FALSE** about image?
- A. Bitmap is derived from the words "bit."
 - B. Bitmap is an image format suited for creation of photo-realistic image.
 - C. Bitmap is a line that is described by the location of its two endpoints.
 - D. Bitmap is made up of individual dots or picture elements known as pixels or pels.
10. Vector-drawn images are used in the following areas **EXCEPT**:
- A. Complex drawings requiring fine detail
 - B. Programs for 3-D animation
 - C. Graphic artists designing for the print media
 - D. Computer-aided design (CAD) programs
11. _____ requires you to negotiate with the right holder regarding terms for using the image and charges you need to pay.
- A. Public domain
 - B. Royalty free
 - C. Right-managed
 - D. Copyright
12. The visual representation of a project that includes a hierarchical table of contents and a chart of the logical flow of the interactive interface is called a(n) _____.
- A. prototype
 - B. storyboard
 - C. navigation map
 - D. entity relationship diagram
13. Non-information areas left intentionally free from visual clutter are referred to as:
- A. negative space
 - B. white space
 - C. depth structure
 - D. busy screen
14. Which of the four navigational structures allows users to navigate nonlinearly, but are occasionally constrained to linear presentations?
- A. Hierarchical
 - B. Linear
 - C. Nonlinear
 - D. Composite
15. The following file formats are specifically designed to contain animations **EXCEPT**:
- A. .max
 - B. .gif
 - C. .swf
 - D. .psd
16. What is tweening?
- A. An activity that requires calculating the number of frames between keyframes and the path the action takes.
 - B. An effect in which a still or moving image is transformed into another.
 - C. A process to apply the affects you have specified on the objects you have created.
 - D. A process to reduce the number of colors in a palette.

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17. The process by which you link objects such as hands to arms and define their relationships and limits is known as _____.
- A. inverse kinematics C. tweening
B. morphing D. rotoscoping

18.

A process to create a sound source with effects such as by placing the sound inside room, a hall, or even cathedral can bring depth and dimension to a project.

Which one of the following statement is the **BEST** to describe basic sound editing?

- A. Resampling or downsampling.
B. Digital signal processing.
C. Volume adjustment.
D. Multiple tracks.
19. Calculate the audio file size for 8-bit mono sound with sampling rate of 21100 Hz and played for 1 minute.
- A. 164.84 KB C. 9890.63 KB
B. 168,800 KB D. 1,236.33 KB
20. Audio _____ determines the accuracy with which audio can be digitized.
- A. size C. sampling
B. length D. resolution
21. Analog video is recorded onto _____.
- A. SD card C. Random access memory
B. Hard-disk D. Magnetic tapes
22. Calculate the video file size with the information given in the table below:
- | Duration | Frame Rate | Frame size | Color depth |
|------------|------------|------------|-------------|
| 10 minutes | 25 fps | 160 by 120 | 8-bit |
- A. 281250 MB C. 275 MB
B. 38400 KB D. 4687 KB
23. The _____ computer provides network services to the _____ computers on that network.
- A. server; client C. node; node
B. client; server D. host; node
24. Each Internet service is implemented on an Internet server by dedicated software known as a _____.
- A. demon C. deamon
B. daemon D. doraemon

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25. Which of the following are information included in data packets each time the data are sent over the Internet?
- I. A piece of data.
 - II. A sequence number.
 - III. Error correction information.
 - IV. The sender computer's address.
 - V. The receiving computer's address.
- A. I, II, IV and V C. II, III, IV and V
B. I, II, III and IV D. All of the above

Section B: True and False Questions (Total: 25 Marks)

Instruction: Please shade "A" for TRUE statements and "B" for FALSE statements on the OMR sheet provided.

26. Communication between two persons, face to face is considered as multimedia interaction.
27. Hypermedia is constrained to only text-based. Other media such as graphics, images and continuous media cannot be applied.
28. CD or DVD technologies can be replaced by flash drives due to faster speed and smaller size in order to deliver multimedia projects.
29. Multimedia designer is the leader of a project who oversees the entire project and is responsible for overall development and implementation of the project's day to day operations.
30. A hard disk is non-volatile storage that is rewriteable permanent memory.
31. It is not important to choose an authoring tool that facilitates easy transfer across platforms.
32. Bitmap fonts drawing use instructions and mathematical formulae to describe each glyph.
33. If a font that you used is not available in someone else's computer, the content could not be displayed on the computer screen.
34. An anchor is defined as the reference from one document to another document, image, sound, or file on the Web.
35. Bitmap images can be converted to vector images using autotracing.
36. The most commonly used image file format used in Windows is PICT.

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37. Vector images use less memory space and have a smaller file size as compared to bitmaps.
38. GUI stands for graphical user interface.
39. Icons are fundamental graphic objects symbolic of an activity or concept.
40. Morphing is an effect in which one image transforms into another.
41. 2 ½ space supports realistic and complicated animations which its motions are calculated along all three axes (x, y and z).
42. Cel animation is a technique in which a series of progressively different graphics is used on each frame of a movie film.
43. Compressor-decompressor is a software that compresses a stream of audio or video data for storage transmission, and decompresses it for playback.
44. MP3 compression is a space saver because it uses lossy compression algorithm.
45. The audio file formats must be determined to ensure it is compatible with the multimedia authoring software being used, along with delivery mediums.
46. Digital video has replaced analog video as the method of choice for making and delivering video for multimedia.
47. Separate Videos are used to separate RGB channels and brightness over three cables.
48. Codec is a special software that allows a massive amount of imagery to be squeezed into a comparatively small data file, which can still deliver a good viewing experience on the intended viewing platform during playback.
49. The IP address, or Internet address, is made up of three numbers separated by periods.
50. The greater bandwidth of your connection, the more time you will spend for downloading for multimedia elements.

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Section C: Structured Questions, 3 Questions (Total: 30 Marks)

Instruction: Answer ALL the questions in the Answer Booklet provided.

QUESTION 1**[10 Marks]**

- a. Define the terms of *multimedia*. (3 Marks)
- b. Briefly describe **THREE (3)** basic functions of authoring software. (3 Marks)
- c. Differentiate the role between *multimedia designer* and *multimedia programmer*. (4 Marks)

QUESTION 2**[10 Marks]**

- a. Differentiate between Serif font and Sans Serif font and its suitability of usage. Give **ONE (1)** example for each font type. (6 Marks)
- b. Define *Kerning* and *tracking* in font terminology. (2 Marks)
- c. Explain why an ASCII code is needed for a computer? (2 Marks)

QUESTION 3**[10 Marks]**

- a. State **SIX (6)** graphical approaches to avoid when designing a multimedia project. (6 Marks)
- b. Differentiate between *depth structure* and *surface structure*. (4 Marks)

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Section D: Scenario Based Questions, 2 Questions (Total: 20 Marks)

Instruction: Answer ALL the questions in the Answer Booklet provided.

QUESTION 1**[10 Marks]**

You are participating in developing a 3D animation short movie competition for *CDP Maker Fest 2016*. In order to enter this competition, you are required to write a portfolio report that contains:

- i. **TWO (2)** steps you need to do before start creating your 3D images.
(4 Marks)
- ii. **TWO (2)** examples of 3D animation software that you might use for the project.
(2 Marks)
- iii. **TWO (2)** features of 3D animation software that you could use to create 3D animation.
(4 Marks)

QUESTION 2**[10 Marks]**

Mary wants to share her favorite songs and videos on her personal website.

- i. She wishes to do sound check to all songs before uploading. List **TWO (2)** possible hardware that are required by her.
(2 Marks)
- ii. What is the most common video file format that Mary can upload in order to display in web page? Justify your answer.
(2 Marks)
- iii. She wishes to compress the video file before uploading. Justify her intention.
(2 Marks)
- iv. Some of her targeted audiences are born deaf or hard of hearing. How does Mary make the video content accessible to those who are deaf or difficulty in hearing?
(4 Marks)

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